

## **SEPA ENVIRONMENTAL CHECKLIST**

### ***Purpose of checklist:***

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

### ***Instructions for applicants:***

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

### ***Instructions for Lead Agencies:***

Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

### ***Use of checklist for nonproject proposals:***

Please complete all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. ADDITION, complete the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). For nonproject actions.

#### **A. BACKGROUND**

1. Name of proposed project, if applicable:

**Skookumchuck Hatchery Culvert Replacement and Fish Enhancement**

2. Name of applicant:

**Washington Department of Fish and Wildlife**

3. Address and phone number of applicant and contact person:

**600 Capitol Way N, Olympia, WA 98501: Chris Gourley (360) 902-8392**

4. Date checklist prepared:

**05/27/14**

5. Agency requesting checklist:

**Washington Department of Fish and Wildlife**

6. Proposed timing or schedule (including phasing, if applicable):

**Construction scheduled to begin 05/15, or when permits allow.**

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

**No**

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

**None.**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

**None are known at this time.**

10. List any government approvals or permits that will be needed for your proposal, if known.

**A Thurston County Shoreline Exemption Permit, WDFW Hydraulic Project Approval, and Army Corps of Engineers Permit.**

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

**This project will replace a 36" culvert that is located under a paved driving surface on the hatchery grounds. The culvert connects a stream past the fish ladder to the Skookumchuck River. The culvert will be replaced with a 85' 8'-9" x 3' bottomless arch pipe. The channel at the outfall of the culvert will be roughened to create additional salmonids habitat. The channel within the bottomless arch pipe will be graded so that it is no longer perched above the channel and has a steady grade from top to bottom of 5.2%. A removable picket barrier will be placed below the new arch pipe to encourage fish to enter the fish ladder to the hatchery during spawning. Underground utilities will also be relocated as needed and as noted on sheet 6. About 2500 square feet of restoration planting will occur on each end of the new arch pipe and will be composed of a native shrub mix.**

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, "and county" if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

**The Skookumchuck is located at 10500 Skookumchuck Rd. SE outside of Tenino in Thurston County. From I-5, take exit 102 for Trosper Rd. toward Black Lake. Head east on Trosper Rd. to Capitol Blvd. SE. Turn onto Capitol Blvd. SE, heading south. This turns into Old Hwy 99. Follow Hwy 99 to Tenino, turning right onto E Sussex Ave, then S Wichman St., and onto W 6<sup>th</sup> Ave to remain on Old Hwy 99. Take the first left onto WA-507 S/ Bucoda Hwy SE. Turn left onto 184<sup>th</sup> Ave SE and continue onto Skookumchuck Rd. SE. The hatchery facility is on the left before the Skookumchuck Dam. The property is located within Section 18, Township 15 N, Range 1 E and the parcel number is**

21518120200.

## B. ENVIRONMENTAL ELEMENTS

### 1. Earth

a. General description of the site

(circle one): Flat, **rolling**, **hilly**, steep slopes, mountainous,  
other \_\_\_\_\_

b. What is the steepest slope on the site (approximate percent slope)?

**The steepest slope is the bank into the creek bed and it is approximately 50%.**

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

**The soils on the property are classified as Baumgard loam, 10-40% slopes and Pilchuck loamy sand. Nearby soils include Baumgard-Pheeney complex, 40-65% slopes; Wilkeson silt loam, 5-20% slopes; and Wilkeson silt loam, 20-40% slopes. All soil types tend to be well drained.**

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

**No.**

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

**The purpose of the project is to enhance fish passage from just upstream of the fish ladder entrance. Fill type and quantities are listed in the following table:**

Stream Quantities				
Material	Cut		Fill	
	Above OHW	Below OHW	Above OHW	Below OHW
Native Material	-4 CY	-24 CY		
Concrete Sill				3 CY
Streambed Sediment				8 CY
Streambed Cobble				11 CY
Trail Quantities				
	Cut		Fill	
	Above OHW	Below OHW	Above OHW	Below OHW
Native Material	34 CY			

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

**Erosion may occur, but every effort will be made to reduce erosion. Once the pipe arch is placed, it is unlikely there will be any erosion. Flows in this area are of low velocities and streambed materials have been chosen based on average flows for this area to reduce any movement.**

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

**There will be no change in the amount of impervious surface on the site. The area of paved driveway that will be removed to place the pipe arch will be replaced with asphalt of the same dimensions.**

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

**Any potential erosion will be prevented using erosion control BMPs. A staging area will be assigned to the contractor to reduce erosion on site. A sediment barrier will be placed around the staging area and within any area that construction takes place to reduce erosion. BMPs may include, but will not be limited to sand bags, silt fencing, and straw wattles. A stream diversion will be established for pipe arch work. Summer flows in the creek are low and water will be routed around the construction area to reduce any impacts to water from the work.**

## **2. Air**

- a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

**Vehicle exhaust and dust from construction is expected. No long-term change in emissions is expected from the completed project.**

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

**No**

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

**Standard emission control converters and mufflers will be in use by construction vehicles.**

## **3. Water**

- a. Surface Water:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

**The creek that runs through the hatchery to the Skookumchuck River on the south side of the road is called Troller Run. Water levels in the stream are generally low in the summer time. During the fall and winter, water levels can be higher and are associated with precipitation events.**

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

**Yes. The project will require work within 200 feet of all listed water bodies. The new pipe arch will be a replacement for an under sized culvert on Troller Run, which is in close proximity to Skookumchuck River.**

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

**All fill will be locally sourced if possible. All work can be seen on site plans and will be along Troller Run as it runs through the hatchery area under the paved driveway.**

Stream Quantities				
Material	Cut		Fill	
	Above OHW	Below OHW	Above OHW	Below OHW
Native Material	-4 CY	-24 CY		
Concrete Sill				3 CY
Streambed Sediment				8 CY
Streambed Cobble				11 CY
Trail Quantities				
	Cut		Fill	
	Above OHW	Below OHW	Above OHW	Below OHW
Native Material	34 CY			

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

**Surface water from Troller Run will need to be diverted for the removal of the culvert and its replacement with the new pipe arch. The flow diversion plan is shown on Sheet 9 of the plan set. The diversion pipe will be a minimum 24" polyethylene pipe. Pea gravel-filled sandbags will seal the inlet and outlet bypass. This ensures that the water from Troller Run is not negatively affected by the stream bed work.**

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

**According to FEMA FIRM map 53067C0525E, the work area is just outside Zone A, but the parcel is within the zone. It appears that Zone A stops at the road, leaving the hatchery out of the flood zone. All work being conducted is north of the road and therefor out of the floodplain.**

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

**No.**

**b. Ground Water:**

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

**No.**

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

**Not Applicable.**

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

**Drainage will not be altered from current conditions.**

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

**It is possible for waste materials to enter surface waters. There is no designated filtration system to keep waste materials out of the stream. Runoff is directed to swales and ditches along roadsides that run into the stream. No construction waste will enter the stream.**

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

**Temporary erosion and sediment control measures will be used during construction as described in the site plans. Staging and refueling of machines will be conducted out of the OHWM with non-toxic lubricants. During project demolition and construction, a silt fence will be installed around the work area. Additional siltation prevention BMPs include filter fabric fences and hay bales. At project conclusion, these materials will be removed by hand and taken to an approved disposal site out of the flood zone.**

**All exposed soils will be sloped to promote runoff and covered with straw mulch and grass seed. Native plantings will be installed where indicated on the plans. All work will be done in accordance with the terms and conditions of required permits. Please see site drawings for additional details.**

4. Plants

a. Check or circle types of vegetation found on the site:

- ☒ deciduous tree: **alder, maple**, aspen, other: cottonwood  
☒ evergreen tree: **fir**, cedar, pine, other: **hemlock**  
☒ shrubs  
☒ grass  
\_\_\_\_\_ pasture  
\_\_\_\_\_ crop or grain  
\_\_\_\_\_ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other  
\_\_\_\_\_ water plants: water lily, eelgrass, milfoil, other  
\_\_\_\_\_ other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

**Existing trees will be protected in place where possible. If any vegetation is removed for construction, it will be replaced with native plants at project completion where possible. Planting areas on either end of the new pipe arch will be planted with native shrubs.**

c. List threatened or endangered species known to be on or near the site.

**The Natural Heritage Program (NHP) databases as well as the federal agency listings (USFWS) were examined for threatened or endangered plants on May 21, 2014. Stat threatened plants listed in Thurston County include the following: *Carex densa* (Dense**

sedge), *Heterotheca oregona* (Oregon goldenaster), *Howellia aquatilis* (Howellia) (federally listed as Threatened), *Pityopus californica* (pine-foot), *Polemonium carneum* (Great Polemonium), *Polystichum californicum* (California sword fern), and *Symphotrichum hallii* (Hall's aster). State endangered plants include the following: *Castilleja levisecta* (golden paintbrush) (federally listed as Threatened), *Lathyrus vestitus ssp. bolanderi* (Pacific pea), and *Sidalcea malviflora ssp. virgata* (rose checker-mallow). All of the threatened species have been recorded in recent and historical times outside the project area. Observations of the Pacific pea and Hall's aster have been near the project area, but their association with prairie habitats would tend to rule out their presence at the project site. This area does not support prairie habitat.

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

**Existing vegetation will be protected in place where possible. An area upstream and an area downstream of approximately 2500 square feet each will be planted with native shrubs.**

## 5. Animals

- a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, **heron**, **eagle**, **songbirds**, other:

mammals: **deer**, bear, **elk**, **beaver**, other:

fish: bass, **salmon**, **trout**, herring, shellfish, other

- b. List any threatened or endangered species known to be on or near the site.

**Northern spotted owl (*Strix occidentalis caurina*), marbled murrelet (*Brachyramphus marmoratus*), streaked horned lark (*Eremophila alpenstris strigata*), bull trout (*Salvelinus confluentus*), golden paintbrush (*Castilleja levisecta*), water howellia (*Howellia aquatilis*), Olympia pocket gopher (*Thomomys mazama pugetensis*), Tenino pocket gopher (*Thomomys mazama tumuli*), and Yelm pocket gopher (*Thomomys mazama yelmensis*) are listed as threatened species in Thurston County. Taylor's checkerspot (*Euphydryas editha taylori*) is listed as an endangered species.**

- c. Is the site part of a migration route? If so, explain.

**The current culvert is a fish barrier. With the removal of the culvert, the section of stream will be passable. When fish are returning to the hatchery, a picket barrier will be installed to divert fish into the hatchery fish ladder for spawning. Coho and winter steelhead are utilized at the hatchery.**

- d. Proposed measures to preserve or enhance wildlife, if any:

**To preserve fish and wildlife resources, WDFW will time this project to have minimal impact upon wildlife. The culvert replacement is a fish enhancement project that allows for more habitat to be reached by migrating fish.**

## 6. Energy and natural resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

**None are needed. Utility lines will be moved underground from their current locations.**

- b. Would your project affect the potential use of solar energy by adjacent properties?  
If so, generally describe.

**No.**

- c. What kinds of energy conservation features are included in the plans of this proposal?  
List other proposed measures to reduce or control energy impacts, if any:

**None are included.**

## **7. Environmental health**

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal?  
If so, describe.

- 1) Describe special emergency services that might be required.

**None.**

- 2) Proposed measures to reduce or control environmental health hazards, if any:

**Avoid use of toxic chemicals and materials.**

## **b. Noise**

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

**None.**

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

**Increased levels of noise during construction activities are expected from this project.**

**Hours of increased noise levels will be 7am to 6pm. No change in noise level is expected from the completed project.**

- 3) Proposed measures to reduce or control noise impacts, if any:

**No special noise reduction efforts are planned.**

## **8. Land and shoreline use**

- a. What is the current use of the site and adjacent properties?

**The site is an established hatchery. Adjacent properties are used for resource harvesting and maintenance of the Skookumchuck Dam.**

- b. Has the site been used for agriculture? If so, describe.

**No.**

- c. Describe any structures on the site.

**The site has 3 hatchery buildings, an aeration tower, fish raceways, a fish ladder, adult**



**holding ponds, and pollution abatement ponds. All structures are in working order and are used for hatchery operations.**

- d. Will any structures be demolished? If so, what?

**The current culvert (36") is being removed to enhance fish passage with replacement of the culvert with a 85' long, 8'-9" x 3' equivalent pipe arch.**

- e. What is the current zoning classification of the site?

**RRR1/5 Rural Residential Resource**

- f. What is the current comprehensive plan designation of the site?

**Unknown**

- g. If applicable, what is the current shoreline master program designation of the site?

**Conservancy**

- h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

**The hills near the site appear to be listed in Thurston County as a geological hazard area. The area in which the work will be conducted does not appear to be within this zone. While WDFW PHS data show that regular concentrations of elk and harlequin ducks occur in the area, the work area is a small portion of this habitat. Small palustrine wetlands also exist within a mile of the site, but none will be impacted either directly or indirectly by the project. The work area is within the management buffer township for the northern spotted owl. According to SalmonScape, the Skookumchuck River supports spring and fall Chinook, coho, and winter steelhead runs. The river is within the ESUs of Chinook, coho, and steelhead.**

- i. Approximately how many people would reside or work in the completed project?

**None. Workers use the hatchery, but not the culvert directly.**

- j. Approximately how many people would the completed project displace?

**None.**

- k. Proposed measures to avoid or reduce displacement impacts, if any:

**None.**

- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

**None.**

## **9. Housing**

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

**None.**

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

**None.**

- c. Proposed measures to reduce or control housing impacts, if any:

**None.**

#### 10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

**The road will be replaced at the same elevation that it is currently and as such will not result in any structures higher than current structures.**

- b. What views in the immediate vicinity would be altered or obstructed?

**None.**

- c. Proposed measures to reduce or control aesthetic impacts, if any:

**None.**

#### 11. Light and glare

- a. What type of light or glare will the proposal produce? **None.** What time of day would it mainly occur?

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

**No.**

- c. What existing off-site sources of light or glare may affect your proposal?

**None.**

- d. Proposed measures to reduce or control light and glare impacts, if any:

**None.**

#### 12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

**The river is used for fishing.**

- b. Would the proposed project displace any existing recreational uses? If so, describe.

**No.**

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

**Recreation will not be impacted.**

### 13. Historic and cultural preservation

- a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

**No.**

- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

**There is one historic property within half a mile of the site, but there are not historic properties on the site itself. There are no details on the WISAARD site about the nearby property.**

- c. Proposed measures to reduce or control impacts, if any:

**Keep project within the proposed footprint.**

### 14. Transportation

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

**No modifications will be made to the existing roads. The road to access the hatchery is a county road, Skookumchuck River Road. Only the drivable area within the hatchery on WDFW property will be altered.**

- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

**The site is not served by public transit. The nearest stop is approximately 15 miles away in Yelm.**

- c. How many parking spaces would the completed project have? How many would the project eliminate?

**The proposed project does not add or remove any parking.**

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

**No.**

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

**No.**

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

**This project is not expected to increase recreational access or opportunities and it is not anticipated that additional vehicular trips will be generated by the project.**

- g. Proposed measures to reduce or control transportation impacts, if any:

**None.**

**15. Public services**

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

**No.**

- b. Proposed measures to reduce or control direct impacts on public services, if any.

**None.**

**16. Utilities**

- a. Circle utilities currently available at the site:  
**electricity**, natural gas, **water**, **refuse service**, **telephone**, sanitary sewer, **septic system**,  
other \_\_\_\_\_

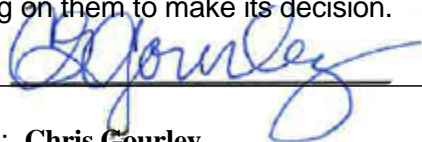
- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

**No additional utilities are planned this site. Utility lines and pipes will be moved to better accommodate the larger pipe arch.**

**C. SIGNATURE**

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: \_\_\_\_\_



Name of signee: **Chris Gourley**

Position and Agency/Organization: **Biologist, Washington Department of Fish and Wildlife**

Date Submitted: **May 27, 2014**

**Appendix A Project Drawings**